PATENT ABSTRACTS OF JAPAN

(11)Publication number:

62-194686

(43) Date of publication of application: 27.08.1987

(51)Int.Cl.

H01L 31/12

(21)Application number: 61-036991

(71)Applicant: NEC CORP

20.02.1986 (22)Date of filing:

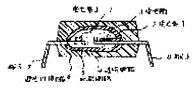
(72)Inventor: HORI ATSUO

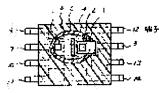
(54) OPTICALLY COUPLED SEMICONDUCTOR DEVICE

(57)Abstract:

PURPOSE: To obtain a high transmission efficiency and a high capability of removing the same phase without any alteration of conventional manufacturing technique by a construction wherein a lead frame whereon a lightreceiving element is mounted is set at the electrically lowest potential in a circuit on the light-receiving element side, the shape of the lead frame is so changed as to interrupt a light-emitting element from the lightreceiving element, and further the two elements are sealed in the same transparent resin.

CONSTITUTION: A light-emitting element 1 is mounted on a terminal 7 and a light-receiving element 2 on a terminal 8. The two elements are covered with transparent resin 4 and further with white-opaque resin 5, so as to increase the rate of arrival of light at the light-receiving element. Furthermore the two elements are sealed up finally by light-intercepting resin 6. The end of the terminal 8 is so formed as to interrupt the light-emitting element from the light-receiving element.





A light outputted from the light-emitting element passes with diffused reflection through an optical path formed of the resin and reaches the light-receiving element in a track shown by a dotted line in the figure.